

MARIO E. FRANCISCOLO

ABOUT THE GENUS *PARASTENOMORDELLA*  
ERMISCH 1950<sup>1)</sup>)

(COLEOPTERA: MORDELLIDAE)

By courtesy of S. Riese I received some time ago a stock of Mordellidae from Argentina, a land rather poorly known with regard to this coleopterous Family; a species easily referable to *Parastenomordella* Ermisch 1950:60 resulted to be new; this is a good occasion for reviewing the position in the system of Mordellidae of this genus which was described upon a unique female; since its description no other author had the opportunity to see either the type species or other species referable to it.

***Parastenomordella ensifera* n.sp.**

(figs 1-23)

Material examined: 1 ♂ holotype, 1 ♀ allotype, 3 ♂♂ paratypes «Argentina, Dept. Entre Rios, Liebig, XII.81, leg. Sebastian Bolle»; accepting ICZN's recommendation n° 72D all specimens are deposited in a Museum (Museo Civico di Storia Naturale G. Doria, Genova). Parts figured are not hereinafter described.

Dimensions (mm): ♂ holotype, head 1.45x1.53; pronotum 2.00x2.15; elytra 4.40x1.95; total length 7.85; pygidium 3.7x0.75. ♀ allotype, head 1.00x1.40; pronotum 1.50x1.90; elytra 3.98x1.85; total length 6.48; pygidium 3.30x0.60. The ♂ holotype displays the maximum dimensions; the smallest ♂ paratype has head 1.15x1.50; pronotum 1.45x1.85; elytra 3.70x1.80; total length 6.30; pygidium 2.40x0.60.

---

1) 57<sup>th</sup> contribution to the knowledge of Mordellidae.



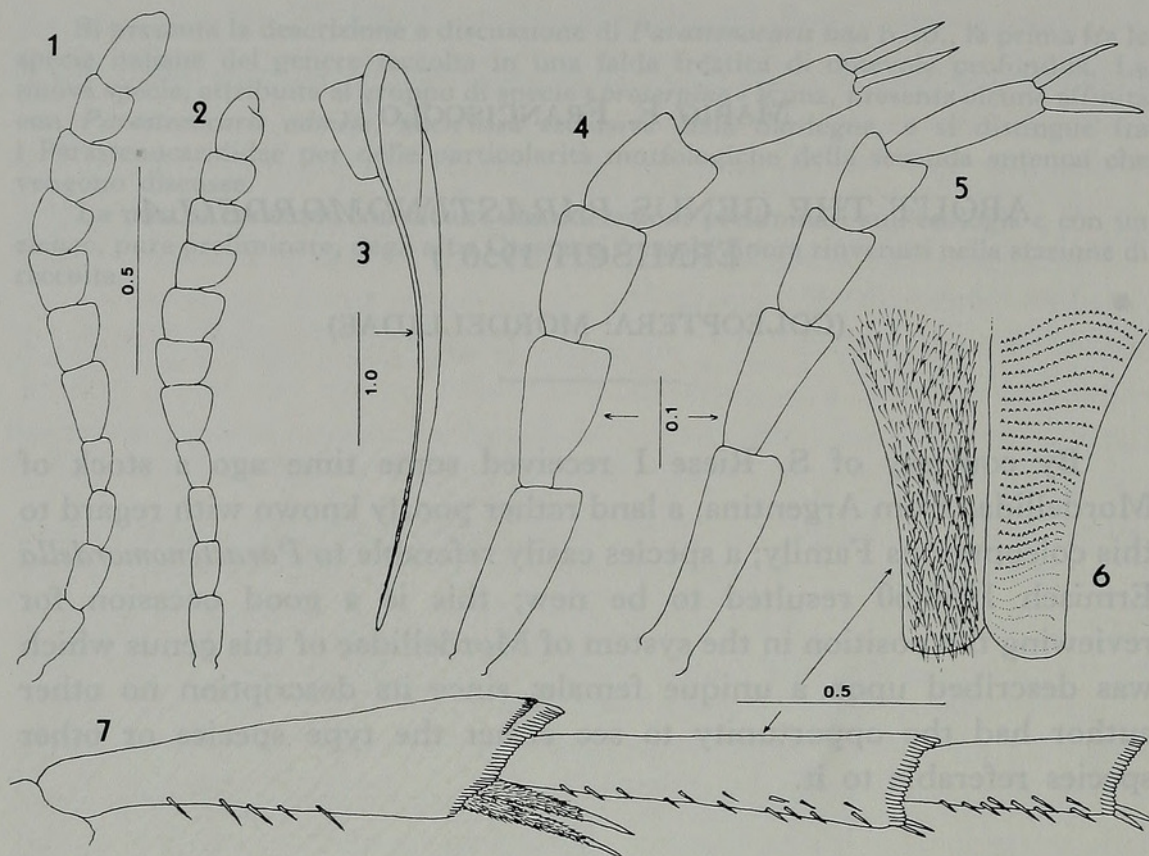


Fig. 1-7: *Parastenomordella ensifera* n.sp. 1. ♂ right antenna (holotype); 2. same, ♀ allotype; 3. left elytron and metepisternon laterally (♂ holotype); 4. right protarsus (♂ holotype); 5. same, ♀ allotype; 6. metasternal process, ♂ holotype; 7. metatibia and first two metatarsomeres, from left, ♂ holotype. Scales in mm.

General form narrow, strongly elongate (ratio max. length including pygidium: max. width at base of pronotum: ♂ 5.58, ♀ 3.58).

Ground colour uniformly shining black; elytra reddis-brown, except a narrow sutural line, the epipleurae and a transverse apical band at their distal third which are dark brown; first four antennomeres brown; anterior legs dark brown; hind tibial spurs black.

Pubescence golden on elytra and base of pronotum, sericeous, decumbent, with coppery casts under oblique light, dark on the dark brown areas of elytra; pleural basal sides of urosterna with sub-triangular areas with golden-whitish pubescence, gradually darkening on the remainder of the ventral side.

Head normally transverse, broader than long (ratio ♂ 1.05, ♀ 1.40), narrower than pronotum, moderately convex; seen laterally without



periorbital keel; occipital margin, seen from above, in a smooth and regular curve without abutments or cavities; seen from behind it is straight, without any concavity at center; temporal fringe short, with a few sparse hairs; temporal edge narrow, hardly visible, not protruding; sculpture consisting of small, regularly arranged, round points; interstices minutely shagreened, meshes polygonal, longitudinally stretched. Eyes small, occupying one third of total cranial surface, very finely faceted, hairy, reaching the occiput, without hypocranial expansions. Labial palpi fig. 11. Maxillary palpi (♂) fig. 13 (♀) fig. 14. Paraglossae, palpigeri of labial palpi and prementum fig. 15. Antennae (♂) fig. 1 (♀) fig. 2; when folded hardly touching vertex of pronotal anterior angles. Mandibles bidentate, with normal retinaculum.

Pronotum broader than long (ratio ♂ 1.07, ♀ 1.26), subtrapezoidal, transverse, slightly attenuated anteriorly; sides, seen from above, slightly convex; sculpture consisting of small, regularly arranged, file-like points; interstices minutely and transversely shagreened, meshes elongate and narrow. Anterior lobe narrow, hardly protruding, moderately sinuate at sides; marginal edge of the anterior side very thin, not dilated at the level of the anterior angles and obsolete at about one third after their vertices; anterior angles obtuse ( $130^\circ$ ), broadly rounded off at vertices; sides, in lateral view, convex; basal angles obtuse ( $115^\circ$ )

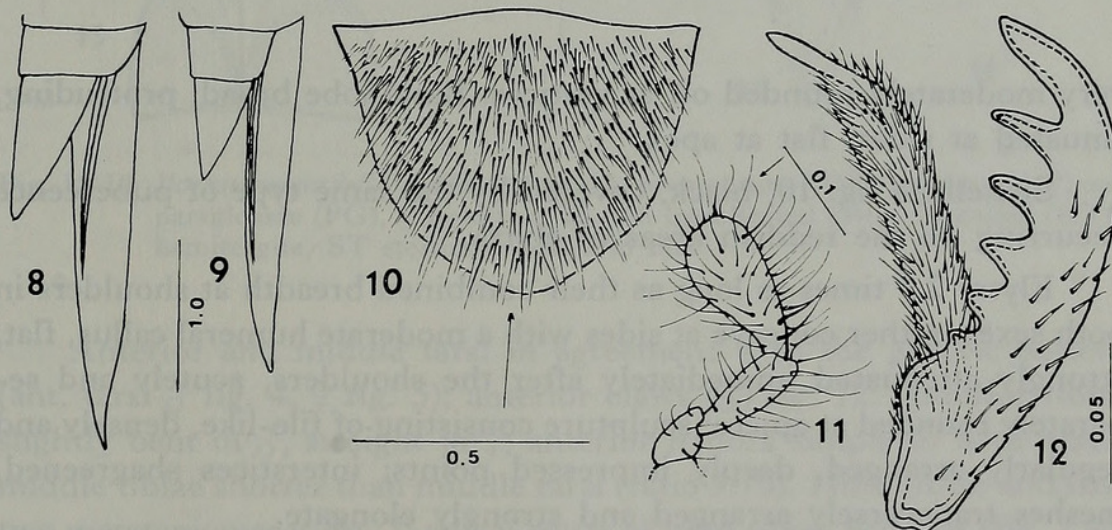


Fig. 8-12: *Parastenomordella ensifera* n.sp. 8. pygidium and hypopygium, laterally from left, ♂ holotype; 9. same, ♀ allotype; 10. scutellum, ♂ holotype; 11. right labial palpus, ♂ holotype; 12. inner anterior claw and basipulvillus, from left, ♂ paratype. Scale in mm.



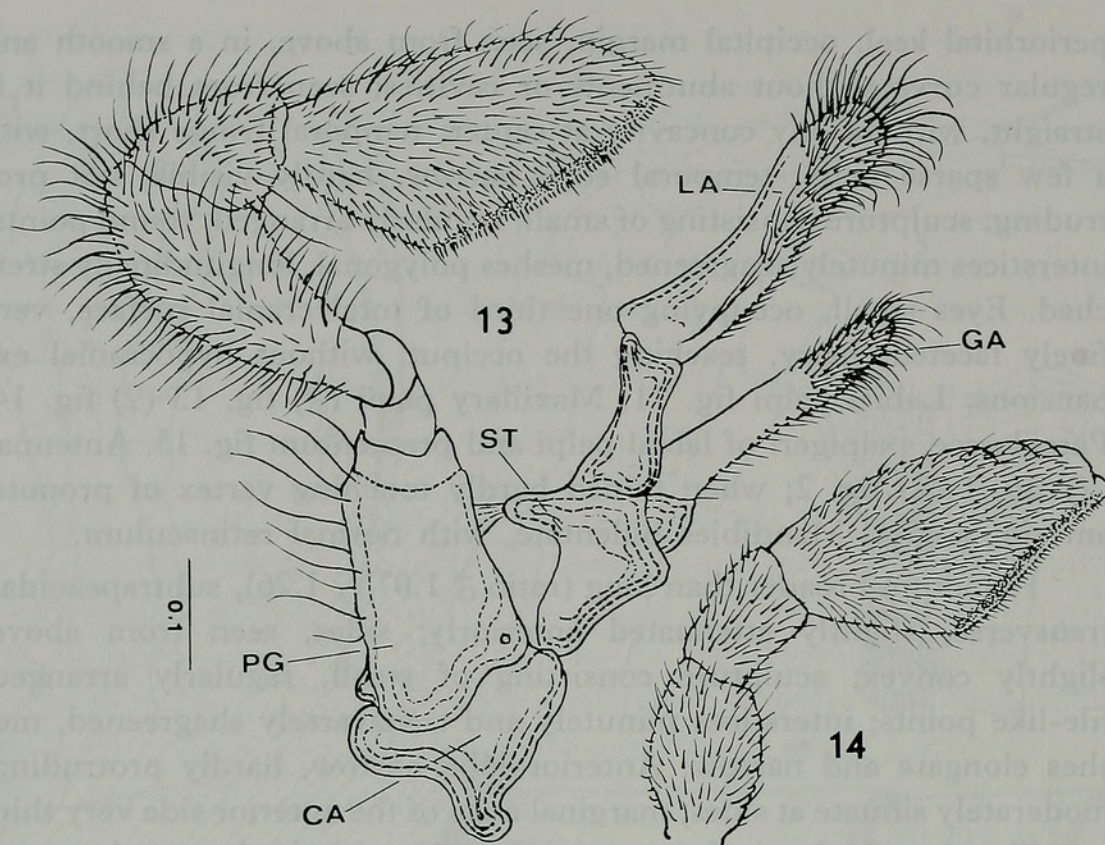


Fig. 13-14: *Parastenomordella ensifera* n. sp. 13. left maxilla, dorsally, ♂ paratype, with maxillary palpus (CA cardo, GA galea, LA lacinia or lobarius, PG palpiger of maxillary palpus, ST stipe); 14. last three maxillary palpomeres of ♀ allotype. Scale in mm.

very moderately rounded off at vertices. Basal lobe broad, protruding, sinuated at sides, flat at apex.

Scutellum fig. 10, black, covered by the same type of pubescence occurring on the reddish areas of elytra.

Elytra 2.3 times as long as their combined breadth at shoulders in both sexes, rather concave at sides with a moderate humeral callus, flat, strongly attenuated immediately after the shoulders, acutely and separately rounded at apices; sculpture consisting of file-like, densely and regularly arranged, deeply impressed points; interstices shagreened, meshes transversely arranged and strongly elongate.

Metepisterna and elytral epipleura as in fig. 3.

Sculpture of metasternal plates of the file-like type with glossy interstices; traces of a transversely arranged striolation are visible at strong magnification; metacoxae glossy.



Urosterna file-like sculptured, glossy, with traces of striolation. Length ratios ♂ 6:7:4.5:10.5, ♀ 7:4.5:5.5:4:7.5.

Metacoxal process fig. 6 (pubescent pattern at left, sculpture at right side of figure).

Pygidium and hypopygium (♂) fig. 6 (♀) fig. 9, slender, dorsally carinate, apically bent upwards in form of a sword; apically acuminate, inferiorly flat. Hypopygium narrowly rounded at tip in both sexes.

Paramera of type C (FRANCISCOLO 1957: 223-226), fig. 20-21; articulated to tegmen fig. 17-18; phallobase fig. 19; 8th introflected sternite fig. 22; penis fig. 23; 9th internal urosternon fig. 16.

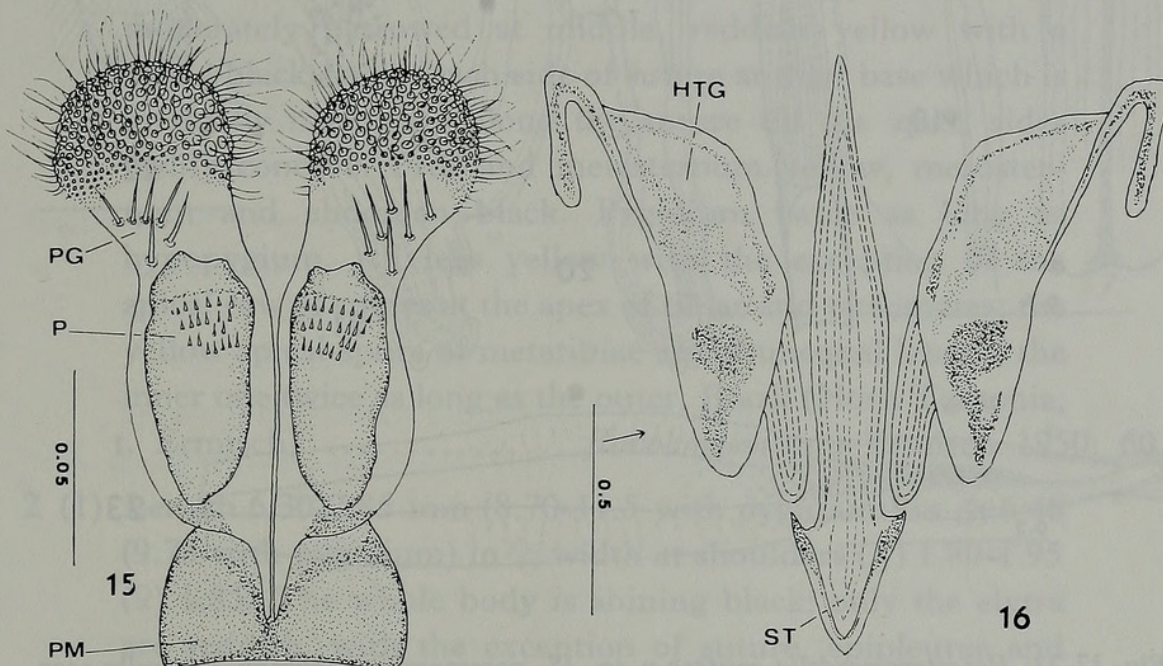


Fig. 15-16: *Parastenomordella ensifera* n. sp. 15. prementum (PM), palpi (P) and paraglossae (PG), ♂ holotype; 16. 9th introflected urite, distended (HTG hemitergite, ST sternite). Scales in mm.

Anterior and middle tarsi in agreement with the generic pattern (ant. tarsi ♂ fig. 4, ♀ fig. 5); anterior claws (♂) fig. 12. Anterior tibiae slightly bent in ♂, straight in ♀; anterior femora simple in both sexes; middle tibiae shorter than middle tarsi (ratio 9:10). Hind tibiae and first two metatarsomeres fig. 7; apical spurs of hind tibiae peculiar (fig. 7 ♂): they are of equal length, acuminate and glabrous at their distal fourth. Middle and hind claws similar in form to the anterior ones but with seven strong teeth instead of six. Tarsal ratios (♂ and ♀): ant. 8:6:5:4.3:7.3; middle 10:5:4.2:2.2:4.5; posterior 17:8.7:7.5:6.5.



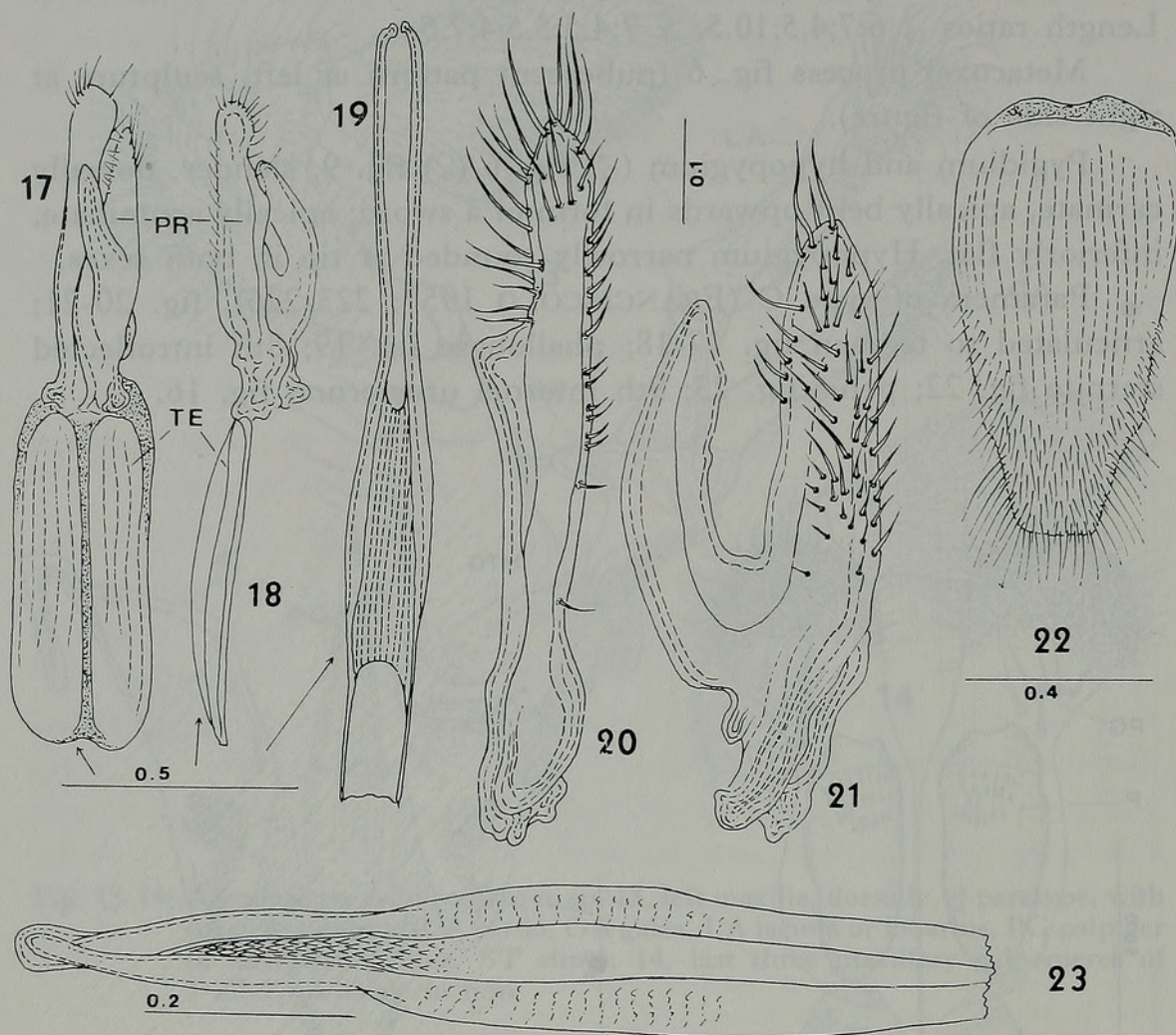


Fig. 17-23: *Parastenomordella ensifera* n. sp. 17. paramera and tegmen, ventrally seen (PR paramera, TE tegmen); 18. same, laterally seen from right; 19. phallobase; 20. left parameron, ventral side; 21. right parameron, left side; 22. 8th introflected urosternon; 23. distal part of penis. All from ♂ holotype. Scales in mm.

The new species can be easily distinguished from *flavolongevittata* Ermisch according to the following key; I refrained from asking the Dresden Museum für Naturkunde to send in the unique type of *flavolongevittata* which, being a ♀, could not be of great help; on the other hand the long and detailed description (without figures: at the time of Ermisch's work the publication of figures was prohibitive in terms of costs) and the overall high reliability of Ermisch's production insofar as clearness and precision are, in my judgment, exempting from examining his type at least in this case.



- 1 (2) Length (♀) 4.83 mm (5.66 with pygidium); width at shoulders (♀) 1.17 mm. Head reddish brown with a small square dark spot on occiput. Antennae reddish brown with the four proximal antennomeres yellow-reddish; when folded backwards they reach the middle of pronotum; last antennomere at its internal side with no indentation. Pronotum reddish-yellow with a broad oval spot at center; its basal angles are squarish and not smoothed out at vertex; the marginal edge on the anterior side continues beyond the anterior angles till the posterior ones. Elytra 2.75 times as long as their combined breadth at shoulders, parallel sided, moderately narrowed at middle, reddish-yellow with a broad black area at each side of suture at their base which is gradually narrowing along the suture till the apex; sides feebly concave. Pro- and metasternum yellow, mesosternum and abdomen black. Pygidium twice as long as hypopygium. All legs yellow with the exception of the apical row of spines at the apex of tibiae and tarsomeres; the yellow apical spurs of metatibiae are of unequal length, the inner one twice as long as the outer. Brazil (Nova Teutonia, t. Ermisch) ..... *flavolongevittata* Ermisch 1950: 60
- 2 (1) Length 6.30-7.85 mm (8.70-11.5 with pygidium) in ♂; 6.48 (9.78 with pygidium) in ♀; width at shoulders (♂) 1.80-1.95 (♀) 1.85. The whole body is shining black; only the elytra are reddish, with the exception of suture, epipleurae and their apical sixth which are black. Antennae black, with basal four antennomeres brown; last antennomere in ♀ internally an preapically indented (fig. 2); folded backwards they hardly reach the anterior angles of pronotum. Basal angles of pronotum obtuse (115°) and smoothed out at vertex; the marginal edge of the anterior side fades laterally out at 1/3 beyond the anterior angles. Elytra 2.3 times as long as their combined breadth at shoulders, strongly attenuated posteriorly and laterally distinctively concave; a humeral callus is evident. Underside completely black. Pygidium 2.95-3.00 times as long as hypopygium (fig. 8-9). Legs black; hind tibial spurs equilong (fig. 7). Argentina (Entre Rios, Liebig) ..... *ensifera* n. sp.



**Remarks.** ERMISCH (l.c.: 60) stated that *Parastenomordella* is somewhat allied with *Stenomordella* Ermisch; he probably was referring only to the general outline, which is in fact reminding that of *Stenomordella macrocera* Franciscolo (1965: 380, fig. 34: 381) and of *Stenomordellaria neglecta* (Broun 1880: 415) see figs. 26-27 in FRANCISCOLO 1980: 204; however at p. 41 he places *Parastenomordella* out of the *Binaghia*-group of genera (FRANCISCOLO 1965: 346 and, for a key to all known genera, 1980: 205-208) and inside the group of genera *Parastenomordella* Erm., *Mordella* L., *Austromordella* Erm., *Hoshihanomia* Kôno, *Machairophora* Franciscolo, *Neucurtimorda* Franc. etc. which I called (1965: 346) *Mordella*-group; the two groups differ as follows:

- 1 (2) The first three antennomeres are shorter and more or less thinner than the following ones; hence the dilatation of antennae, in both sexes, starts from the fourth antennomere ..... *Binaghia*-group
- 2 (1) The first four or five antennomeres are thinner and sometimes shorter than the following ones; hence the dilatation of antennae starts from the fifth or sixth antennomere.
- 3 (4) The first four antennomeres are thinner than the following ones; the first two ones as a rule are somewhat more robust than the third and fourth and of different length; the dilatation of antennae starts from the 5th antennomere and articles 5th-10th show a more or less great degree of serrulation ..... *Mordella*-group
- 4 (3) Antennal dilatation starts from the 6th antennomere; the 5th antennomere is narrow with a slightly dilated apex simulating an additional antennomere connecting the 5th with the 6th one ..... *Paramordella* group

#### KEY TO WORLD GENERA OF THE *Mordella*-GROUP

The arrangement as suggested by Ermisch is at present not acceptable; but Ermisch himself must have been in difficulty in separating his *Parastenomordella* from *Mordella* L.: in fact, according to his key *Mordella* should differ from *Parastenomordella* only for the body less narrowed, more oval or elongately oval, laterally somewhat feebly



rounded; I would suggest, basing upon both *P. flavolongevittata* Erm. and *ensifera* n. sp. the following key for the *Mordella*-group of genera, modifying from entry 36 (27) my old key to world genera (1965: 346) as follows:

- 36 (27) Only the first four antennomeres are thinner, the first two ones normally are somewhat more robust than the third and fourth ones and of different length; antennae are dilated and more or less serrate starting from the 5th antennomere.
- 37 (44) No dorsal ridge on metatibiae and metatarsomeres; some times there are small modified spinulae simulating lateral ridges, which rarely may be rather numerous also on the hind tarsal articles genera of the *Mordella*-group
- 38 (39) Anterior and middle tarsi with the penultimate tarsomere straightly cut at apex or only feebly emarginate (fig. 4-5). When the penultimate tarsomere is feebly emarginate, the 3rd and 4th ones are straightly cut at apex.
- 38A (38B) Metepisterna straightly truncate at their posterior side (fig. 3), subtrapezoidal; pygidium strongly carinate and overtly bent upwards in form of a sword in both sexes (fig. 8-9); sides of the elytra slender and very sharply and separately rounded at apices, with an evident and protruding humeral callus; paraglossae globiform (fig. 15). So far a neotropical genus (Argentina, Brazil) .... *Parastenomordella* Ermisch 1950: 41
- 38B (38A) Metepisterna acuminate at their posterior side, subtriangular; pygidium not carinate, generally obconical, not bent upwards in both sexes; sides of the elytra, seen from above, always more or less convex, the elytra stout, broadly and separately rounded at apices without traces of a humeral callus; paraglossae spatulate (fig. 9 in FRANCISCOLO 1984: 84). Safely known from the palaearctics, S. Africa, Australia, America; probably cosmopolitan .....  
..... *Mordella* Linnaeus 1758: 420



- 39 (38) Penultimate pro- and mesotarsomere more or less deeply emarginate, bilobed and dilated; when the emargination of the penultimate tarsomere is feeble or absent, then the 3rd and 2nd protarsomeres are feebly emarginate (figs. 40: 34-42, 44, 50 in FRANCISCOLO 1965: 411).
- 40 (43) The eyes are entirely glabrous. Sometimes metatibiae and the proximal metatarsomeres carry small spinulae on their dorso-lateral sides simulating rudimental lateral ridges (fig. 40: 32,33; 41:6 ibidem 411 and 415).
- 40A (40B) Occipital margin of head at its medial third provided with a deep pit wherein the strongly protruding anterior lobe of pronotum is embossed. So far an exclusively bibasic spanish genus (MÉQUIGNON 1946: 59) which has been completely overlooked by Ermisch and subsequent Authors. All localities reported from Italy and France are apparently due to mis-identifications ..... *Iberomorda* Méquignon 1946: 59
- 40B (40A) Occipital margin of head without any pit whatsoever, normally convex and, seen from behind, either flat or moderately concave at middle.
- 41 (42) Protarsi abnormally dilated; the apex of the first protarsomere is almost twice as broad as apex of protibia (a good figure is in LEA 1917, Plate 15, fig. 133); last maxillary palpomere extremely narrow and small. So far about four species from Australia....  
..... *Austromordella* Ermisch 1950: 63
- 42 (41) Protarsi not or very moderately dilated, the first protarsomere never broader than the apex of protibia; last maxillary palpomere normaly broadly or elongately oval, or scalene or securiform or cultriform, never equilateral.
- 42A (42B) Small species (mm 3.7-6.0 without pygidium). Pro- and mesotarsomeres of same width from 1st to 4th ones, sometimes of increasing width (fig. 13: 6 in FRANCISCOLO 1957: 222); pygidium constantly short,



obconical, stout, not carinate, truncate (fig. 16: 7 ibidem: 226); metepisterna triangular, acutely terminated at their posterior angle. Left parameron feebly dilated at apex (one exception: *Neocurtimorda aequatorialis* Franciscolo). 8th urosternon much elongate, larger at base than at apex, with obsolete lateral expansions and protruding apical lobe, forming a uniform body with the main part of the sclerite (fig. 40: 51,54,58-60,63-64 in FRANCISCOLO 1965: 411). Very few species have metatibiae and metatarsomeres with small spinulae arranged to simulate rudimental lateral ridges (fig. 40: 32,33 ibid.); eyes minutely faceted and glabrous, tempora completely wanting. One species from Burma, nine species from Central and South Africa ... *Neocurtimorda* Franciscolo 1949: 2

42B (42A) Large or very large species (usually above 10 mm excluding pygidium). Pro- and mesotarsomeres gradually decreasing in width from the 1st to the 4th one (fig. 16: 13 in FRANCISCOLO 1957: 226). Metepisterna trapezoidal, posteriorly truncate. Left parameron generally bifurcate at apex or at least strongly sinuous (fig. 42: 6,10 in FRANCISCOLO 1965: 411), its apex much dilated. 8th urosternon always very broad, broader at apex than at its base, its apical lobe rather protruding, neatly detached from the sternal body, provided with large lateral expansions, truncate at apex and heavily ciliate (fig. 42:9 ibidem: 423). Eyes still minutely faceted and glabrous, tempora either absent or more or less strongly developed.

42C (42D) Pygidium in both sexes strongly carinate, laterally compressed and bent upwards in form of a sword; a robust and protruding humeral callus is constantly present. So far an exclusively pantropical, mainly southern genus (Central & South America, Central Africa, Indonesia, Australia, New Zealand); it is here-with definitely rehabilitated from the synonymy with *Hoshihananomia* proposed by Ermisch in 1950 ....  
..... *Machairophora* Franciscolo 1943: 34



- 42D (42C) Pygidium in both sexes normally built, not carinate, obconical, never bent upwards; no humeral callus. Presumably a cosmopolitan genus, mainly tropical but with several species in the temperate zones of both hemispheres ..... *Hoshihananomia* Kôno 1935: 124
- 43 (40) The eyes are densely hairy.
- 43A (43B) The last maxillary palpomere is triangular, equilateral, flat, of the *Glipa*-type (fig. 6B in FRANCISCOLO 1957: 216); mesotarsi longer than mesotibiae. No spinulae simulating rudimental lateral ridges on metatibiae and metatarsomeres. So far a monobasic genus from Congo ..... *Congomorda* Ermisch 1955: 26
- 43B (43A) The last maxillary palpomere is triangular, scalene, securiform or cultriform, moderately flat, of the A-type (fig. 6B in FRANCISCOLO 1957: 216); the mesotarsi are shorter than mesotibiae. Metatibiae and at least the first metatarsomere with numerous small spinulae simulating rudimental lateral ridges (fig. 47: 1-4 in FRANCISCOLO 1965: 439). South Africa, Madagascar ..... *Sphaeromorda* Franciscolo 1950: 8

From entries 44 (37) on, the key l.c. remains unchanged (genera of the *Glipa*, *Mordellaria*, *Zeamordella*, *Calycina*-groups).

The globular structure of paraglossae, fig. 15 (quite different from that of *Mordella*, *Hoshihananomia*, *Machairophora*, *Neocurtimorda* and *Sphaeromorda*) suggests that the feeding habits of *Parastenomordella* are quite peculiar (as usual, no information is available about the host plant, seasonality, early stages etc.); however the study of these relevant mouth parts is still incomplete in the whole *Mordella*-group; the species of the most aberrant genera (*Congomorda*, *Iberomorda*, *Austromordella*) are so far known upon unique type specimens and under the circumstances the removal of prementum with all its appendages is normally unpracticable; I must wait for the availability of more, possibly fresh specimens before publishing the morphofunctional comparative study I have in mind.

**A k n o w l e d g e m e n t s .** I am much indebted to Sergio Riese for his care in securing the argentinian Mordellidae and to Dr. Roberto Poggi, Curator, Museo Civico di Storia Naturale 'G. Doria', for the review of the manuscript and his valuable suggestions.



## REFERENCES

- BROUN T., 1880 - Manual of the New Zealand Coleoptera. I - Colonial Museum & Geological Survey Dept. - Government Printer (Wellington): XVI+1320.
- ERMISCH K., 1950 - Die Gattungen der Mordelliden der Welt (16. Beitr. z. k.d. Mord.) - *Entom. Blätter*, Krefeld, **45-46** (1949-50), 1: 39-42.
- , 1955 - Mordellidae (Coleoptera, Heteromera) - Parc National de l'Upemba, I. Mission G.F. De Witte (1946-1949) - Inst. Nation. Parken v. Belgisch Congo, **35** (3): 23-61, 6 figs.
- FRANCISCOLO M.E., 1943 - *Machairophora*, nuovo genere della tribù Mordellini ed alcune note sistematiche e sinonimiche sui Mordellidae (Col. Heter.) - *Boll. Soc. ent. ital.*, Genova, **75** (4): 33-40, 1 fig.
- , 1949 - Un nuovo Mordellino di Birmania - *Doriana*, Genova, **1** (1): 1-4, 24 figs.
- , 1950 - *Ermischiella papuana* n.gen.n.sp. di Mordellidae della Nuova Guinea e diagnosi preliminari di tre nuovi generi africani - ibidem **1** (5): 1-8, 9 figs.
- , 1957 - Coleoptera, Mordellidae, a monograph of south african genera and species, 1. Morphology, subfamily Ctenidiinae and tribe Stenaliini - *South African Animal Life*, Uppsala, **4**, Chapt. 5: 207-291, 29 gr. of figs.
- , 1965 - same title, 2. Tribe Mordellini - ibidem, Lund, **11**, Chapt. 4: 244-458, 55 gr. of figs.
- , 1980 - Revision of *Zeamordella* Broun 1886 and *Stenomordellaria* Ermisch 1950 - *Annali Mus. civ. St. nat. G. Doria*, Genova, **83**: 191-222, 64 figs.
- , 1986 - Revision of *Cothurus* Champion 1891 (Col. Mordellidae) - ibidem, **86**: 225-233, 31 figs.
- KÔNO H., 1935 - Die Mordelliden Japans, 5 Nachtrag - *Trans. Sapporo N. Hist. Soc.*, **14**: 123-131, figs.
- LEA A.M., 1917 - Notes on some miscellaneous Coleopera, with description of new species, 3. Mordellidae - *Trans. & Proc. r. Soc. S. Austr.*, Adelaide, **41**: 209-249, 4 pl.
- LINNAEUS C., 1758 - Systema naturae etc., 1. Regnum Animale, ed. 10<sup>a</sup> reformata - Laurentii Salvii, Holmiae: 1-824.
- MÉQUIGNON A., 1946 - Contribution à l'étude des Mordellides paléarctiques - *Rev. fr. Ent.*, Paris, **13** (2): 52-76, 18 figs.

## RIASSUNTO

A proposito del genere *Parastenomordella* Ermisch 1950.

La scoperta in Argentina di una seconda specie di *Parastenomordella* (*P. ensifera* n. sp.) ha permesso di stabilire l'inquadramento del genere nell'ambito del gruppo di generi facenti capo a *Mordella* L.; viene totalmente rielaborata la chiave analitica ai generi del mondo di tale gruppo riabilitando *Iberomorda* Méquignon e *Machairophora* Franciscolo tra i generi validi.

## SUMMARY

The discovery of a second *Parastenomordella* (*P. ensifera* n. sp.) from Argentina gave the opportunity to fit such genus within the *Mordella*-group; a revised key to world genera of such a group is supplied, wherein *Iberomorda* Méquignon and *Machairophora* Franciscolo are considered to be valid genera.

*Author's address*: Corso Firenze 44-6, 16136, Genova, Italy.





Franciscolo, Mario Enrico. 1989. "About the genus *Parastenomordella* Ermisch 1950 (Coleoptera: Mordellidae)." *Annali del Museo civico di storia naturale Giacomo Doria* 87, 297–309.

**View This Item Online:** <https://www.biodiversitylibrary.org/item/105932>

**Permalink:** <https://www.biodiversitylibrary.org/partpdf/41923>

#### **Holding Institution**

Smithsonian Libraries and Archives

#### **Sponsored by**

Biodiversity Heritage Library

#### **Copyright & Reuse**

Copyright Status: In copyright. Digitized with the permission of the rights holder.

Rights Holder: Museo Civico di Storia Naturale Giacomo Doria

License: <http://creativecommons.org/licenses/by-nc-sa/3.0/>

Rights: <https://biodiversitylibrary.org/permissions>

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.